

**Anti-IFN $\gamma$  Reference Antibody (emapalumab)  
Recombinant Antibody  
Catalog # APR10560****Specification**

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**Anti-IFN $\gamma$  Reference Antibody (emapalumab) - Product Information**

Application	FC, E, FTA
Primary Accession	<a href="#">P01579</a>
Reactivity	Cynomolgus, Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	145.68 KDa

**Anti-IFN $\gamma$  Reference Antibody (emapalumab) - Additional Information****Target/Specificity**IFN $\gamma$ **Endotoxin**< 0.001EU/  $\mu$ g, determined by LAL method.**Conjugation**

Unconjugated

**Expression system**

CHO Cell

**Format**

Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

**Anti-IFN $\gamma$  Reference Antibody (emapalumab) - Protein Information****Name** IFN $\gamma$ **Function**

Type II interferon produced by immune cells such as T-cells and NK cells that plays crucial roles in antimicrobial, antiviral, and antitumor responses by activating effector immune cells and enhancing antigen presentation (PubMed: [16914093](http://www.uniprot.org/citations/16914093) target=" \_blank">16914093</a>, PubMed: [8666937](http://www.uniprot.org/citations/8666937) target=" \_blank">8666937</a>). Primarily signals through the JAK-STAT pathway after interaction with its receptor IFNGR1 to affect gene regulation (PubMed: [8349687](http://www.uniprot.org/citations/8349687) target=" \_blank">8349687</a>). Upon IFN $\gamma$  binding, IFNGR1 intracellular domain opens out to allow association of downstream signaling components JAK2, JAK1 and STAT1, leading to STAT1 activation, nuclear translocation and transcription of IFN $\gamma$ -regulated genes. Many of the induced genes are transcription factors such as IRF1 that are able to further drive regulation of a next wave of transcription (PubMed: [16914093](http://www.uniprot.org/citations/16914093) target=" \_blank">16914093</a>). Plays a role

in class I antigen presentation pathway by inducing a replacement of catalytic proteasome subunits with immunoproteasome subunits (PubMed:<a href="http://www.uniprot.org/citations/8666937" target="\_blank">8666937</a>). In turn, increases the quantity, quality, and repertoire of peptides for class I MHC loading (PubMed:<a href="http://www.uniprot.org/citations/8163024" target="\_blank">8163024</a>). Increases the efficiency of peptide generation also by inducing the expression of activator PA28 that associates with the proteasome and alters its proteolytic cleavage preference (PubMed:<a href="http://www.uniprot.org/citations/11112687" target="\_blank">11112687</a>). Up-regulates as well MHC II complexes on the cell surface by promoting expression of several key molecules such as cathepsins B/CTSB, H/CTSH, and L/CTSL (PubMed:<a href="http://www.uniprot.org/citations/7729559" target="\_blank">7729559</a>). Participates in the regulation of hematopoietic stem cells during development and under homeostatic conditions by affecting their development, quiescence, and differentiation (By similarity).

#### Cellular Location

Secreted.

#### Tissue Location

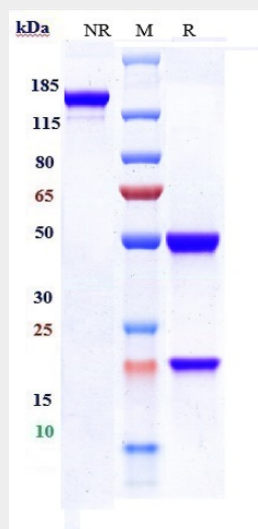
Released primarily from activated T lymphocytes.

### Anti-IFN $\gamma$ Reference Antibody (emapalumab) - Protocols

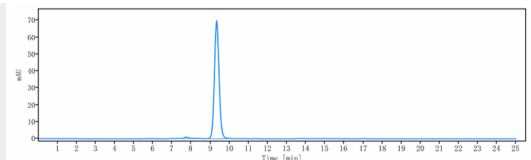
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-IFN $\gamma$ Reference Antibody (emapalumab) - Images



Anti-IFN $\gamma$  Reference Antibody (emapalumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%



The purity of Anti-IFN $\gamma$  Reference Antibody (emapalumab) is more than 99% ,determined by SEC-HPLC.